



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Biopesticides and Pollution Prevention Division (7511P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

73806-3

Date of Issuance:

3/2/2018

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

PFS 516 Systemic Fungicide  
Bactericide

Name and Address of Registrant (include ZIP Code):

Plant Food Systems, Inc.  
P.O. Box 775  
Zellwood, Florida 32798

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product, always refer to the above EPA Registration Number.

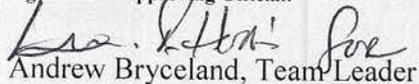
On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA or the Act).

Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency (EPA). In order to protect health and the environment, the Administrator, on his or her motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under the Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration or registration review of your product when the EPA requires all registrants of similar products to submit such data.
2. Submit storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) data as these data requirements are not satisfied. A one-year study is required to satisfy these data requirements. You have 18 months from the date of this registration to provide these data to the EPA.

Signature of Approving Official:

  
Andrew Bryceland, Team Leader  
Biochemical Pesticides Branch  
Biopesticides and Pollution Prevention Division (7511P)  
Office of Pesticide Programs

Date:

3/2/2018

3. Make the following labeling change before you release this product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 73806-3."
4. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

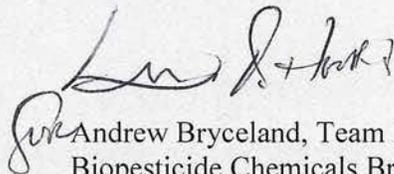
Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

- Basic CSF dated 06/19/2017

Any CSFs other than those listed above are superseded.

If you have any questions, please contact James Parker by phone at (703) 306-0469 or via email at [Parker.James@epa.gov](mailto:Parker.James@epa.gov).

Sincerely,



Andrew Bryceland, Team Leader  
Biopesticide Chemicals Branch  
Biopesticides and Pollution  
Prevention Division (7511P)  
Office of Pesticide Programs

Enclosure

# PFS 516<sup>®</sup> SYSTEMIC FUNGICIDE BACTERICIDE

## PRODUCT INFORMATION:

A SYSTEMIC FUNGICIDE BACTERICIDE FOR THE CONTROL OF DOWNY MILDEW, HUANGLONGBING (HLB, CITRUS GREENING DISEASE) ON CITRUS, PHYTOPHTHORA, PYTHIUM, AND VARIOUS OTHER DISEASES ON AGRICULTURAL AND GREENHOUSE CROPS, AND TURF.

## ACTIVE INGREDIENTS:

Dipotassium phosphonate .....	21.00%
Dipotassium phosphate .....	24.50%
OTHER INGREDIENTS: .....	<u>54.50%</u>
TOTAL.....	100.00%

\*Contains 2.25 lbs/gallon Dipotassium phosphonate. Equivalent to 1.168 lbs/gallon (10.64% by weight) phosphorous acid.

\*Contains 2.53 lbs/gallon Dipotassium phosphate. Equivalent to 1.440 lbs/gallon (13.16% by weight) phosphoric acid.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

FIRST AID STATEMENTS	
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
HOT LINE NUMBER	
Have the container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378 for emergency medical treatment information.	

**See Inside booklet for First Aid and Additional Precautionary Statements.**

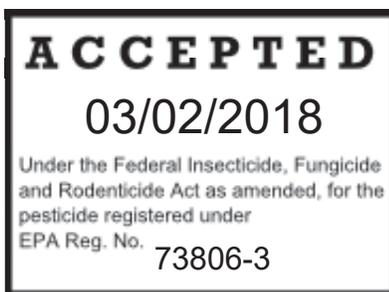
## NET CONTENTS

- 2 1/2 gallons
- 5 gallons
- 30 gallons
- 55 gallons

**MANUFACTURED BY:**  
 PLANT FOOD SYSTEMS, INC  
 2827 Union St. P.O. Box 775  
 Zellwood, FL 32798

EPA Reg. No. 73806-  
 EPA Est. No. 73806-FL-001

Batch No.



## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling. Wash thoroughly with soap and water before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.

### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

All mixers, loaders, applicators and other handlers must wear long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves and protective eyewear. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **ENGINEERING CONTROLS STATEMENT**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### **USER SAFETY RECOMMENDATIONS BOX**

Users should remove PPE/clothing immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

### **ENVIRONMENTAL HAZARDS**

For terrestrial uses: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

(For containers with contents greater than 5 gallons Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.)

### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label before using this product.

Do not apply this product in a way that will contact workers or other person, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Workers Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants, soil, or water, is: coveralls over long-sleeved shirt and long pants, socks, shoes, chemical resistant gloves and protective eyewear.

#### **Non-Agricultural Use Requirements**

The requirements of this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter treated areas without protective clothing until sprays have dried.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL OR ILLEGAL RESIDUES.

#### **APPLICATION DIRECTIONS**

##### **GENERAL APPLICATION INSTRUCTIONS**

Apply PFS 516 by various application methods, including foliar sprays, trunk injection, soil drench, soil incorporation, and bare root dip. For foliar sprays, apply PFS 516 with sufficient water for adequate coverage of foliage, according to crop and growth stage. To insure good coverage, spray to wet.

##### **MIXING INSTRUCTIONS**

1. Fill the spray tank with 1/2 of the required volume of water.
2. Add PFS 516 slowly to the tank and agitate by hydraulic or mechanical means.
3. Continue to fill the tank with water to the desired volume while agitating.
4. Continue agitation when applying.

For 1-gallon (3.785 liters) container sizes: this package can treat up to 34,848 sq. ft. at the maximum treatment rate. For 2 ½-gallon (9.463 liters) container sizes: this package can treat up to 2 acres at the maximum treatment rate. For 5-gallon (18.925 liters) container sizes: this package can treat up to 4 acres at the maximum treatment rate.

##### **LOW VOLUME AND ULTRA-LOW VOLUME APPLICATIONS**

Label rates are written for conventional application equipment. For LV/ULV equipment, use per acre rate of PFS 516 and adjust amount of water to equipment needs. Always conduct a phytotoxicity test on a small area before applying to a large area in order to assess any potential risk to plants.

##### **COMPATIBILITY**

Mixing PFS 516 with certain surfactants, foliar fertilizers or other pesticides may cause crop injury. PFS 516 is a slightly acidic buffer solution. Avoid mixing PFS 516 with strongly acidic or alkaline materials. Do not tank mix without first testing the mixture's compatibility nor apply it without assessing its safety to the crop (phytotoxicity). It is not possible to test all material combinations and environmental tank mix combinations. Always conduct a test with the intended tank mix on a small area prior to any large-scale applications. To determine if a combination is phytotoxic to a specific crop, spray a small area of foliage and fruit, and then evaluate 3-7 days later for visual symptoms.

Test the compatibility of spray adjuvants (i.e. stickers, spreaders, wetting agents) with PFS 516 before use. Do not use acidifying type compatibility agents.

To determine the compatibility of PFS 516 with other products, use a jar compatibility test. Add the correct proportions of each product and the appropriate quantity of water to clean container, thoroughly mix, then let stand for 3-5 minutes. If the mixture remains in solution or can be remixed readily, the products are considered compatible.

## **CHEMIGATION**

### **APPLICATIONS THROUGH SPRINKLER AND DRIP IRRIGATION SYSTEMS**

Apply this product through microsprinkler, drip, solid set and center pivot sprinkler irrigation systems. Do not apply this product through any other type of irrigation system.

**PREPARATION OF INJECTION EQUIPMENT:** Remove scale, pesticide residues and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

**APPLICATION INSTRUCTIONS:** Fill tank with 1/2 to 3/4 of desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of PFS 516, then the remaining volume of water. Set sprinkler to deliver 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the solution of PFS 516 into the irrigation water line so as to deliver the desired rate per acre. Inject the PFS 516 solution with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. For other questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

**NOTE:** For Microsprinkler and Drip Irrigation Systems: Avoid further irrigation of the treated area for 24 to 48 hours after treatment with PFS 516 has been completed. For Solid Set and Center Pivot Irrigation Systems: Avoid further irrigation of the PFS 516 treated area until after the foliage has completely dried. This will help to prevent washing the chemical off the crop.

### **GENERAL PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER AND DRIP IRRIGATION SYSTEMS**

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigate ion system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment.

**Maintain continuous agitation in mix tank during mixing and application to assure uniformity solution.** Do not apply when wind speed favors drift, when system connection or fittings leak, when nozzles do not provide uniform distribution, or when lines containing the product must be dismantled or drained. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of chemigation water.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation shall shut down and adjust the system as needed.

Do not connect an irrigation system (including greenhouse system) used for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.

#### **GENERAL INSTRUCTIONS FOR APPLICATIONS FOOD CROPS**

PFS 516 Systemic Fungicide Bactericide is used for control of Downy Mildew, Powdery Mildew, *Erwinia amylovora*, *Pythium*, *Fusarium*, *Rhizoctonia* and *Phytophthora* disease (such as purple blotch, late blight, blue mold, soft rot, root rot, brown rot, foot rot, crown/collar rot, canker, fruit/foliar rot, fire blight, heart rot, pink rot, *pythium* leak, red stele, leather rot, etc.) of agronomic crops. (See specific crop groupings for additional diseases.) This product may be applied up to the day of harvest (0 day PHI). Apply PFS 516 to plants including:

#### **ORNAMENTALS:**

(Commercial and Agricultural Use) Apply PFS 516 as a soil drench (0.10%-2% v/v) in water to wet the root zone, and as a foliar spray (1-2%) to run-off. A 1% dilution is achieved by mixing 1 gallon of PFS 516 with 99 gallons of water. A 0.1 % dilution is achieved by mixing 12.8 oz. with 99.9 gallons of water. For drench applications, use 1 pint diluted in water per sq. ft. for soils 4-inches in depth or less, and 2 pints diluted in water per sq. ft. for soils with depths greater than 4-inches. Use the higher rate for greater disease pressure. Make repeat applications every two to three weeks.

(Residential; Home & Garden Use) For preventative control of certain diseases in ornamentals. For soil drench, apply PFS 516 at a 0.5% dilution. Mix 1/8 cup (2 tbsp) of PFS 516 per gallon of water, and apply with a watering can or other device so as to wet the root zone. For foliar application, apply PFS 516 at a 1% dilution. Mix 1/4 cup (4 tbsp) per gallon of water and apply with a hand or backpack sprayer. Apply to runoff. Make repeat applications every two to four weeks.

#### **PLANT TOLERANCE-**

PFS 516 has been found to be safe for representative plant species listed below; however, many varieties and cultivars have not been tested. To determine whether PFS 516 can be safely used on other plants or sensitive varieties/cultivars, test a small area first. The following plants have been tested with good tolerance and safety to PFS 516:

Apple, Aglaonema, Aphelandra, Azalea, Bougainvillea, Boxwood, Cattelya, Chrysanthemum, Cissus, Cleyera, Crape Myrtle, Cycads, Cypress, Daylily, Dieffenbachia, Dogwood, Ficus, Fir, Geranium, Hawthorne, Hibiscus, Holly, Hydrangea, Ivy, Juniper, Lantana, Leather-Leaf Fern, Ligustrum, Magnolia, Maple, Marigold, Mimosa, Oak, Palm, Pansy, Peach, Pear, Persimmon, Philodendron, Photinia, Pieris, Pine, Pittosporum, Plum, Poinsettia, Pyracantha, Rhododendron, Rose, Schefflera, Spathiphyllum, Spruce, Syngonium, Taxus, Viburnum, Vinca, Zinnia

**PFS 516** has been proven effective against a wide spectrum of pathogens such as powdery mildews (*Oidium*, *Phyllactinia*, *Erysiphe* and *Sphaerotheca*) leaf spots, stem cankers and scabs caused by *Alternaria*, *Botryosphaeria*, *Cladosporium*, *Entomosporium*, *Elsinoe* and *Taphrina*, rusts caused by *Puccinia* and *Cronartium*, as well as root rots and blights caused by *Pythium*, *Phytophthora* and *Thielaviopsis* and downy mildews. PFS 516 can also be used for the control/suppression of *Erwinia* fire blight and bacterial blights/leaf spots caused by *Xanthomonas* and *Pseudomonas*.

#### **NON-BEARING CITRUS AND NURSERY ES:**

For control of citrus *Alternaria* leaf spot, make foliar applications at 1-2% v/v as new flush first appears and continue at 2-3 week intervals until the new foliage is mature. Repeat the sequence with each additional growth flush. For *Phytophthora* root rot, make soil or foliar applications at 1-2% v/v or in water to wet the root zone or to run-off the foliage. For control of *Phytophthora* root rot make foliar applications at 1-2% v/v up to run-off. For soil applications apply 1-2 gallons per acre in water to wet the root zone or for containerized trees, use 1-2% v/v drench to wet the roots.

#### **NON-BEARING PEACHES:**

For control of peach gummosis (*Botryosphaeria dothidea*), make applications of 1-2% v/v to the tree as the new flush first appears in early spring in water to affect a run-off and wet the branches and trunk. Repeat applications at a monthly interval during the growing season.

#### **NON-BEARING PECANS:**

For control of foliar pecan scab (*Cladosporium caryigenum*). Infections of foliage occur early as new foliage first emerges. Make first application of 1-2% v/v at first emergence and repeat at 3-4 week intervals until leaves have matured.

**NON-BEARING BLUEBERRIES (HIGHBUSH AND RABBITEYE):**

For control of rust (*Pucciniastrum myrtilli*) and *Septoria albopunctatum*, apply foliar applications of 1-2% v/v in early Spring when new foliage emerges and continue on a 3-4 week interval for the remainder of the growing season. For *Phytophthora* root rot control, apply 1-2% v/v as a soil application to the bed as a surface spray in early spring and in later summer.

**NON-BEARING GRAPES:**

For control of downy mildew (*Plasmopora viticola*) and powdery mildew (*Oidium*), apply foliar applications of 1-2% v/v on a 3-4 week interval during the growing season.

**TURF:**

PFS 516 is a systemic fungicide for use in a seasonal program for the control of *Pythium* diseases, such as blight and root rot, and Yellow tuft on turf grasses on golf courses, sod farms, overseeded bermudagrass and other turf areas. Apply as a foliar spray using 1-5 gallons of water per 1,000 sq. ft. as indicated in the table below. Apply with a properly calibrated sprayer.

DISEASE	APPLICATION INTERVAL	RATE fl. oz./1000 sq. ft.
<i>Pythium</i> diseases, Yellow tuft	14-21 days	8.0 to 16.0
<i>Helminthosporium</i> leaf spot	14-21 days	8.0 to 16.0
<i>Magnaporthe</i> summer patch	14-21 days	8.0 to 16.0
Powdery mildew	14-21 days	8.0 to 16.0
Bentgrass Dead Spot ( <i>Ophiosphaerella</i> )	14-21 days	8.0 to 16.0

Begin preventative applications when conditions first favor disease and repeat at the application interval identified. Do not mow or water treated areas until foliage is completely dry.

**TURF TANK MIXTURES** - Summer Decline/Summer Stress Complex: Use PFS 516 for control of Summer Decline/Summer Stress caused by a complex of *Pythium* and *Rhizoctonia* diseases, and for control of Anthracnose caused by *Colletotrichum*, on turf grasses on golf courses, sod farms and other turf areas. PFS 516 can be tank mixed with chlorothalonil fungicides at labeled rates, unless a product label prohibits such mixing. Apply as a foliar spray using 1-5 gallons of water per 1,000 sq. ft. as indicated in the table below. Apply with a properly calibrated sprayer.

PRODUCT	DISEASE	APPLICATION INTERVAL	RATE per 1000 sq. ft.
PFS 516 + Daconil Ultrex or Concorde DF	Summer Decline	14 days	8.0 to 16.0 fl. oz. + 3.2 oz.  3.2 oz.
PFS 516 + Daconil Ultrex or Concorde DF	Anthracnose	14 days	8.0 to 16.0 fl. oz. + 3.2 oz.  3.2 oz.

Begin preventative applications when conditions first favor disease and repeat at the application interval identified. Do not mow or water treated areas until foliage is completely dry.

**AGRICULTURAL CROPS:**

**Application Rate:** Begin spraying when environmental conditions are favorable for the development of disease or as indicated below. Preventative treatments are the most effective, and rotation with other registered fungicides is recommended. Do not apply above the recommended rates. Unless specified, there is no limit to the number of applications. Use a minimum of 25 gallons per acre in all applications. See Dilution Table below.

	25 Gallons of Solution/Acre	50 Gallons of Solution/Acre	75 Gallons of Solution/Acre	100 Gallons of Solution/Acre
1/2% Solution	16 fl.oz. product + 24	32 fl.oz. product + 49.75 gal water	48 fl.oz. product + 74	½ gal product + 99.5 gal water

	gal and 112 fl. oz. water		gal and 80 fl. oz. water	
<b>1% Solution</b>	32 fl. oz. product + 24.75 gal water	½ gal product + 49.5 gal water	96 fl.oz. product + 74 gal and 32 fl. oz. water	1 gal product + 99 gal water
<b>2% Solution</b>	½ gal product + 24.5 gal water	1 gal product + 49 gal water	1½ gal product + 73.5 gal water	2 gal product + 98 gal water

**Citrus crops (including subtypes, hybrids and citrus-like crops), Avocado and Other Tropical and Subtropical Fruits (Bearing and Non-Bearing).**

**APPLICATION GUIDELINES:**

**Disease Prevention Program\*:** Apply lower rate at 7-28 day intervals. Do not apply PFS 516 at intervals less than 3 days.

**Disease Control Program:** Apply higher rate at 7-14 day intervals until control is reached. Under severe circumstances, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 at intervals less than 3 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3 day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

<b>DISEASE</b>	<b>APPLICATION METHOD</b>	<b>RATE/APPLICATION</b>
Botryosphaeria dothidea Cercospora (Cercospora arachidicola) Cercosporidium (Cercoporiidium personatum) Clavibacter (michiganensis subsp. Nebraskensis) Fusarium Phytophthora (soil borne and aerial phases, including brown rot) Pseudomonas spp. (including syringae) Pythium Ralstonia solanacearum Rhizoctonia Sclerotinia Xanthomonas spp. (including campestris) Huanglongbing (HLB, Citrus Greening Disease)A	Foliar Spray Application	1-2 gallons in a minimum of 50 gallons of water/acre.
	Aerial Application Equipment	1-2 gallons in a minimum of 5 gallons of water/acre. Not to exceed a 10% concentration
	Chemigation <sup>A</sup>	2-4 gallons in at least 400 gallons of water/acre.
	Transplant Drench/Dip	1 gallon/100 gallons of water, 2/3 fluid ounces/gallon of water.  Apply as pre-plant dip to the roots for 15-30 minutes. Plant within 24 hours after dipping.
	Trunk or Bark Injection	1.5 fluid ounces/linear yard of canopy width or 2 inches of trunk diameter at breast height (DBH). Inject directly into the tree.  Apply according to injection equipment instructions. Adjust rate based on injection equipment suggestions for specific

		applications. Repeat 2-4 times a year until control is reached.
	Soil/Root Drench <sup>A</sup>	2.5-5 gallons/100 gallons of water or 3.125-5 fluid ounces per gallon.  Apply 5-10 gallons of diluted solution per tree. Adjust volume as needed to thoroughly drench area around trunk. Apply at 3-4 week intervals and repeat as needed.
	Soil Directed Application <sup>A</sup>	2.5-5 gallons in min 20 gallons of water/acre.
Alternaria Anthracnose Downy Mildew Powdery Mildew Rust Post Bloom Fruit Drop (PFD) Huanglongbing (HLB) Citrus Greening Disease) ***	Foliar Spray Application	1.5-2.5 gallons in a minimum of 100 gallons of water/acre.
	Aerial Application Equipment	1.5-2.5 gallons in a minimum of 5 gallons of water/acre.  Not to exceed a 10% concentration.

\* Check with your local Extension Agent if you are unsure these conditions exist.

\*\*\* Use a minimum of 2 quarts per acre. The addition of a fertilizer, such as RENEW<sup>®</sup> RX or PFS KEYPON<sup>®</sup> RX may improve control. A non-ionic surfactant may also be used. <sup>A</sup> For use on indicated application methods only.

CROP	DISEASE	RATE/ACRE (v/v)	REMARKS
<b>Avocado</b>	Root rot ( <i>Phytophthora</i> )	2%	Make four preventative foliar applications with spray volumes of 125-300 gal/acre: twice (at 10 to 14 day intervals) in each of two root growth seasons (usually May and July). Avoid applying during period of foliar growth.
<b>Blueberry*</b>	Phytophthora root rot ( <i>Phytophthora spp.</i> ) Alternaria fruit rot ( <i>Alternaria tenuissima</i> ) Rust ( <i>Pucciniastrum myrtil</i> )	2%	Begin foliar applications at pink bud stage in the spring and continue on a 14-21 day interval in a minimum of 30 gallons of water per acre.
<b>Brassica vegetables, such as:</b> Broccoli, cabbage, cauliflower	Downy mildew Blackrot ( <i>Xanthomonas campestris</i> )	1-2% <sup>1</sup>	Make preventative foliar applications at 7-10 day intervals. Use sufficient water to obtain adequate coverage.
<b>Bulb vegetables, such as:</b> Garlic, onion, shallot	Downy mildew Purple Blotch	2% <sup>1</sup>	Make preventative foliar applications at one-week intervals with a spray volume of 25-40 gal/acre depending on size of plants. <sup>3</sup> Use sufficient water to obtain adequate coverage.
<b>Citrus, such as:</b> Grapefruit, kumquat, lemon, lime, orange	Brown Rot and Root Rot ( <i>Phytophthora</i> )	2%	Make preventative foliar applications when conditions favor disease development, usually three times annually (March-April, May-June, and

			Sept.-Oct.). Spray to wetness about 100-250 gal/acre. Apply soil applications using a 2% solution in 25-50 gal/acre beneath the tree line. Make soil applications in May and a second application in August, if needed.
	Greasy spot ( <i>Mycosphaerella citri</i> )	2%	Make preventative foliar applications when conditions favor disease development in sufficient water to achieve thorough coverage. Fresh market applications should be made in mid May, July and August. Make all other citrus applications in May and August.
	Brown Spot* ( <i>Alternaria alternata</i> )	2%	Make applications in sufficient water to achieve full coverage. Begin applications starting first as a dormant application, followed by a 2 <sup>nd</sup> application at early flush. Continue applications on a 3-4 week interval or until conditions are no longer conducive for the disease.
<b>Cucurbits, such as:</b> Cucumber, melon, pumpkin, squash (in open field and under coverage)	Downy mildew Powdery mildew ( <i>Oidium spp.</i> )	1-2% <sup>1</sup>	Make preventative foliar applications at one-week intervals with a spray volume of 40-100 gal/acre, depending on size of plants. Use sufficient water to obtain adequate coverage.
<b>Fruiting vegetables, such as:</b> Tomato, tomatillo, peppers	Late Blight ( <i>Phytophthora infestans</i> )	2% <sup>1</sup>	Make preventative foliar applications starting no sooner than 6 weeks after seeding or 4 weeks after transplanting. Apply at 7-14 day intervals. Thorough coverage is required. As the crop matures, the response is greatly reduced, requiring the use of other fungicides.
<b>Ginseng*</b>	Crown and Fruit ( <i>Phytophthora capsici</i> )  Phytophthora foliar and root rot ( <i>Phytophthora cactorum</i> )	1 gallon  2%	Make soil applications in 25-50 gallons of water and mechanically incorporate in the top 2-3" of soil before planting. Make applications in 100 gallons of water per acre beginning in the spring when conditions first become conducive to the disease. Repeat applications on a 7-day interval as long as conditions remain favorable for the disease. Do not apply more than 9 sprays a season.

<b>Grapes, such as:</b> Carignane, French Colombard, Cabernet Sauvignon, Superior, Thompson, Parlet	Downy mildew	2% <sup>1</sup>	For prevention of downy mildew. During the sensitive period, spray before the appearance of the disease, every 7-10 days with a spray volume of 50 gpa pre-bloom and 100 gpa postbloom. <sup>3</sup> Use sufficient volume to obtain adequate coverage.
<b>Leafy vegetables, such as:</b> Lettuce, spinach	Downy mildew	1-2% <sup>1</sup>	Make preventative foliar applications at 7 to 10 day intervals with a minimum spray volume of 25 gal/acre. <sup>3</sup> Begin spraying at 2 to 4 leaf stage of growth.
<b>Legume vegetables*, such as:</b> Lima beans	Downy Mildew ( <i>Phytophthora phaseoli</i> )	2%	Start applications at flowering using at least 25 gallons of water. Repeat on a 7-day interval while conditions are favorable for the disease.
<b>Pineapple*</b>	Heart rot ( <i>Phytophthora parasitica</i> ) Butt rot ( <i>Ceratocystis paradoxa</i> )	Preplant Dip: 1% Established Plantings: 2%	Apply foliar sprays when conditions are conducive for disease development, or are forecast, continue on a 3-month interval. Use sufficient water to insure complete coverage.
<b>Pome Fruit*, such as:</b> Apple, pear	Collar and Root rot ( <i>Phytophthora spp.</i> ) Scab ( <i>Venturia inaequalis</i> )	2%	Apply in 100 gallons of water per acre (thorough spray coverage is required) when conditions favor disease development, and continue on a 30-60 day interval. Use the low rate at the shorter interval, and the high rate at the longer interval. For scab apply first application at ½" green tip. Repeat at 7-14 day intervals.
<b>Potatoes</b>	Late Blight ( <i>Phytophthora infestans</i> )	2% <sup>1</sup>	Make preventative foliar applications starting no sooner than 6 weeks after seeding or 4 weeks after transplanting. Apply at 7 to 14 day intervals. <sup>3</sup> Thorough coverage is required. As the crop matures, the response is greatly reduced, requiring the use of other fungicides.
<b>Strawberry*</b>	Red Stele ( <i>Phytophthora fragariae</i> )	2%	Apply for 15-30 minutes as a pre-plant dip to the roots and crowns. Plant within 24 hours of dipping. Annual Planting: Begin foliar applications 2-3 weeks after planting and repeat on a 30-60 day interval while the weather is conducive to the disease.

			Perennial Planting: Begin applications in the spring when the plants start growing actively. Repeat applications on a 30-60 day interval if the weather is conducive to the disease. Use the shorter interval and higher use rate on the susceptible varieties, or under heavy disease pressure.
	Leather rot ( <i>Phytophthora cactorum</i> )	1-2%	Begin applications at 10% bloom. Continue spraying on a 7-14 day interval through fruit set while conditions are favorable for disease. Use the high rate and shortest interval under heavy disease pressure.
<b>Stone Fruit*</b> , such as: Peaches, plums	Collar and Root rot ( <i>Phytophthora spp.</i> )	2%	Apply in the spring when conditions are conducive to the disease. Use 100 gallons per acre and repeat on a 60-day interval, as necessary. Do not make more than 4 sprays per year.
<b>Tree Nuts, such as:</b> Almonds	Collar and Root rot ( <i>Phytophthora spp.</i> )	2%	Apply in the spring when conditions are conducive to the disease. Use 100 gallons per acre and repeat on a 60-day interval, as necessary. Do not make more than 4 sprays per year.

\*Not for use in California.

Notes:

1. Use higher rate when conditions favor disease development and/or with increased disease pressure.
2. Use a low spray volume so that the material does not wash off or drip to the ground.
3. For prevention of downy mildew and late blight in bulb, fruiting and leafy vegetables, and grapes, combine PFS 516 treatment with additional protective products, by tank-mix or by alternating treatments.

**COMPATIBILITY** - Do not mix PFS 516 with any copper based fungicides or any sticker, extender, or wetting agent. To determine the physical compatibility of PFS 516 with any other product, use a small container to mix a small amount (e.g., 1 pint) of spray solution, containing all ingredients in the same order and ratio as the anticipated use. If any indication of physical incompatibility develops, do not use this mixture for spraying. Indication of incompatibility usually appears within 5-15 minutes after mixing. Read and follow all directions on this label and on the labels of any products for which a tank mixture is being considered.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Store in a cool, dry place.

**PESTICIDE STORAGE:** Keep containers tightly closed when not in use.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Do not reuse empty container. Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, keep out of smoke.

**NONREFILLABLE CONTAINERS:** Do not reuse or refill this container. Clean container promptly after emptying.

**NONREFILLABLE CONTAINER EQUAL TO OR LESS THAN 5 GALLONS:** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 120 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**NONREFILLABLE CONTAINER GREATER THAN 5 GALLONS:** Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## Warranty and Disclaimer

### NOTICE TO BUYER

To the extent permitted by law, all conditions and warranties, and statutory or other rights of action which buyer or any other user may have against Plant Food Systems Inc. or seller are hereby excluded. Plant Food Systems Inc. hereby gives notice to buyer and other users that it will not accept responsibility for any indirect or consequential loss arising from reliance on product information provided by Plant Food Systems Inc. or on its behalf unless it is established that such information or advice was provided negligently and that the product has been used strictly as directed. Plant Food Systems Inc.'s liability shall in all circumstances be limited to replacement of the product or a refund of the purchase price thereof.

**OPTIONAL GRAPHICS**  
(may appear on any sublabel)

**Fruit & Vegetable Graphic (may appear on Front Panel or elsewhere of sublabels bearing fruit and vegetable crops):**



**Turf & Ornamental Graphic (may appear on Front Panel or elsewhere of sublabels bearing turf and ornamental crops):**



**Quality Warranty Graphic (may appear on Front Panel or elsewhere of sublabels):**



Text of graphic: "Quality Warranty Guarantee"

Text accompanying graphic: "Plant Food Systems' products use only quality materials, with no byproducts or downstream contaminants for consistent performance & results."

Citrus (May appear on front panel or elsewhere on label.)



Ag Container Recycling Council (ACRC) Graphic (may appear on Front Panel or elsewhere of commercial (non-consumer) sublabels):



Text of graphic: "Ag Container Recycling Council, Sustained Product Stewardship"

NOTE: Colors utilized in above graphics may vary on the actual final printed labels